Looking Through a New Market Window

Trends in the Fresh Produce Industry

A typical supermarket produce section has 400 items, most available 365 days of the year. Consumers, more than ever before, are willing to pay for convenience and availability of fresh produce. The grocery industry has responded with a variety of packaged fresh salads, exotic fruits, organic produce, and a year-round supply of many commonly known items, such as apples, grapes, tomatoes, melons and lettuces.

This in turn has changed the nature of the produce industry itself, although few people outside the industry realize it.

"At least in fresh produce, consumer behavior and demographic trends are sending clear signals to the industry, resulting in structural changes," says Paul Wilson, an agricultural economist at The University of Arizona.

He and fellow agricultural economist Gary Thompson, both from the Department of Agricultural and Resource Economics (AREC), and Roberta Cook, an Extension economist at the University of California, Davis, recently completed a firm-by-firm study analyzing trends and innovations within the fresh produce industry. The Cooperative State Research Extension Service (CREES), USDA, sponsored the project

Their findings dismiss some of the stereotypes associated with produce farms.

"The American public often visualizes commercial farms as farmsteads surrounded by contiguous acreage owned and operated by the family," Wilson and Thompson say. Actually, there is no "typical" produce operation, the researchers found. The industry is not homogeneous, but heterogeneous, with a variety of innovative organizational arrangements designed to supply produce 52 weeks out of the year. Each company decides how it will grow and market its produce, and this differs from one firm to the next.

Retailers and food service companies are consolidating and merging into fewer, larger companies resulting in a smaller number of produce buyers. With hundreds of fresh produce items in supermarkets today, and year-round shipping from individual companies, competition has increased for retail shelf space and a spot-on-food service menus. In response, grower/shippers adopt competitive strategies directed at these more powerful buyers.

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Closely-held family corporations often farm acreages in several states and/or foreign countries to take advantage of seasons and to allow companies to supply produce year round. "Firms are regional and global with diverse agricultural and non-agricultural enterprises," Wilson says. "This trend started decades ago with lettuce growers, and now tomato and melon growers also use these strategies."

These tactics include growing crops sequentially in distinct geographic areas, for example in Florida, then Mexico, then California, or growing them in several geographic areas simultaneously. The producers take advantage of regional growing conditions and microclimates to be able to keep a steady supply of produce on supermarket shelves.

"You have globalization of agribusiness, where national boundaries don't mean anything," Wilson says. "The public knows they get produce from California in the summer and Mexico in the winter, but what they don't know is that a Florida-based firm may be growing all that produce year round. There are also Mexican companies farming in California and Florida."

This concentration on the characteristics of growing areas rather than on the integrity of national boundaries has implications for international trade. "Trade disputes get fuzzier when you have firms that are producing simultaneously on both sides of the border," Thompson says. "The produce industry is now a global business."

Not only have growers changed what they grow and where they grow it, they now have to decide what form to market that fruit or vegetable in after they harvest it. "It creates a whole host of decision making that wasn't there a few years ago," Wilson explains. "Do you grow lettuce to sell as a naked head or as packaged salad? What influences that decision?"

The researchers went straight to the CEOs of major grower-shippers in California, Arizona and northwest Mexico to find answers to this question and others.

The research focused on the grower-shipper model instead of the grower, because this function is becoming a dominant trend in the market. These are growers who finance and/or grow the crop themselves, and are also responsible for the harvesting, packing, shipping and marketing of that crop to the first buyer. Many of the major produce firms in the country are now categorized as grower-shippers.

No longer do large-scale growers decide on their own what to produce and then sell it to someone, the researchers found. Instead, they contract with shippers who have in turn worked with retailers and foodservice providers to find out what consumers want. Over time, the grower and shipper roles have merged into a single company representing both. These grower-shippers call the shots for growing tomatoes, melons and lettuces, according to Wilson and Thompson.

"Farmers will be 'employees' to grower-shippers, and marketing functions will dominate production," Wilson notes. This changes the conception of what an agribusiness firm is. "They are always searching, experimenting to see what will work." This market research in food was not a part of the traditional produce industry before. As a result, this market-driven orientation has forced agribusiness companies to find new and innovative ways to present their produce.

Two recent and powerful trends in the produce industry involve advanced technology: value-added products, and those developed through biotechnology. Both are a response to consumer demands for hassle-free meal preparation and high quality.

Value-added products involve another step beyond harvesting the produce and displaying it in bulk in a supermarket. Fresh fruits and vegetables may be cut, bagged, mixed or otherwise minimally processed in their natural state to make them easier to use. Fresh-cut melons and pineapple, bagged leaf lettuce or lettuce mixes, plastic-wrapped cauliflower, wrapped trays of tomatoes, and fresh packaged stir-fry vegetables have all become familiar additions to supermarket produce sections. Companies have begun to put their brand stickers on

Example of a regional sourcing sequence for fresh produce.

individual tomatoes, melons, squash and other items to indicate their quality and uniqueness.

Value-added technology has caused grower-shippers to increase their product quality monitoring to assure food safety. Careful production scheduling has become critical to make sure a steady supply of fresh produce is ready to be packaged.

Biotechnology has enhanced the value-added trend. Developing new varieties through gene-splicing is a faster method than traditional plant breeding techniques. Companies in search of market opportunities are developing their own proprietary fruit and vegetable varieties, suited for both value-added packaging and for bulk sales as branded items. These varieties may also be developed to grow in different microclimates around the world. Such innovations in seed development require considerable expenditures for research and development, a cost growers have not historically undertaken, but some grower/shippers are investing in now.

All of this expense and effort derives from the high stakes nature of the fresh produce industry, and the sophistication it must constantly maintain to handle incredible volumes of perishable agricultural products throughout North America.

"Most fresh-processed items have a shelf life of two weeks, maximum. There can be incredible spoilage, and thousands of players are involved," Thompson says. "The energy and excitement of this industry are based on perishability."

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— Susan McGinley and Crystal Renfrow

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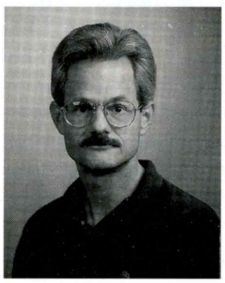

Analyzing an Industry

Gary Thompson, Paul Wilson and Roberta Cook spent more than 150 hours in 1995–96 interviewing executives of 81 produce firms specializing in marketing lettuce, tomatoes and melons.

Tomato firms participating in the study included those marketing approximately 80 percent of California fresh tomatoes, 70 percent of Florida fresh tomatoes, and 60 percent of the tomatoes exported from Mexico. Melon firms included those handling between 50 and 60 percent of the melon sales in California and Arizona, and lettuce firms (primarily out of Salinas) included those providing approximately 80 percent of the lettuce consumed throughout the year in the United States.

"We designed a one-hour interview protocol," Wilson explains. "We touched on all general aspects of their businesses: what types of products do they market and where, types of customers, standard growing issues regarding water and seed, business networks and relationships, sourcing and contracts. Then, to quantify information, we left them a data form to fill out and fax back to us." The researchers agreed to withhold the names of participating firms to assure confidentiality.

"We wanted to get primary data and a personal understanding of the industry by talking with CEOs from these companies, rather than studying secondhand aggregate data," Wilson says. "This is the first effort we know of to systematically analyze the industry. We designed our research to look at strategic issues surrounding the industry and how those issues will affect firm-level structure."